

Application No. 09/711,118
Preliminary Amendment
Docket No. 7227-270 (formerly 10722.270)

Amendments to the Specification:

Text added by Examiner's request

Please add the following new paragraph following line 27 on page 9 (i.e., immediately prior to the heading "Detailed Description of the Invention" found on page 10).

--Like features in different drawing figures are designated by like or same reference labels.--

Please add the following new paragraph immediately following line 2 on page 6 of the application as filed. Support for this added paragraph is found in claims 1, 9, 10, and 23 of the application as filed. No new matter is being added.

-- In general, in one aspect, the invention features a microwave circuit package that includes multiple fluoropolymer composite substrate layers defining levels and having surfaces. Metal layers (i.e., conducting layers) are disposed on surfaces of the substrate layers. Groundplanes are formed from a first subset of the metal layers and are connected by a first set of conductors. The circuit package also includes at least one coupler that includes at least two coupling lines arranged in a substantially spiral-like shape. In some implementations, the composite substrate layers are fusion bonded into a homogeneous dielectric structure and at least one of the composite substrate layers is adhered to ceramic.--

Please replace the paragraph beginning at page 1, line 27, of the filed application with the following rewritten paragraph:

- Traditional couplers, especially those that operate at lower frequencies, typically require a relatively long parts housing size (i.e., a long packaging size) since coupling between lines is often required over a long distance.--

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Please replace the paragraph beginning at page 13, line 17, of the filed application with the following rewritten paragraph (this rewritten paragraph replaces the rewritten paragraph provided in applicant's April 18, 2003 response to the Dec. 18, 2002 Office Action).

--Referring to Figs. 12 - 17, typical electrical performance characteristics of the embodiment shown in Figs. 3 - 11 and described above are shown for a frequency range of 1.0 GHz to 3.0 GHz. For the purposes of the performance curves, four ports (P1, P2, P3, P4) are located as follows~~the ports are as follows~~: P1 is at contact pad 901; P2 is at contact pad 902; P3 is at contact pad 903; and P4 is at contact pad 904. Fig. 12 shows the return loss, in decibels, for P1, P2, P3, and P4. Fig. 13 shows the amplitude balance, or difference between the signal from P2 to P1 and the signal from P4 to P1, in decibels. Fig. 14 shows the phase balance, or phase difference between the signal from P2 to P1 and the signal from P4 to P1, in degrees. Fig. 15 shows the outer transmission, in decibels, between P4 and P1 and between P2 and P1. Fig. 16 shows the inner transmission, in decibels, between P2 and P3 and between P4 and P3. Fig. 17 shows the isolation, in decibels, between P4 and P2 and between P3 and P1.--